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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,629	01/23/2006	Fred Runge	20811/0204480-US0	2308
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DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			EXAMINER HUYNH, NAM TRUNG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,629	Applicant(s) RUNGE ET AL.	
	Examiner NAM HUYNH	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 50-90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 50-75, 77-79, and 82-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 2002/0034971) in view of Desai (US 2004/0204074), and further in view of Kato (US 6,522,725).

Regarding claims 50, 72, and 82, Chang teaches a method for carrying out a hands-free communication using a telecommunication terminal (paragraph 15, hands

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free communication using a telecommunication terminal is carried out by the hands free care kit), the method comprising:

loading, at least temporarily, at least one program (voice recognition, speech synthesizer, acoustic echo canceller, and noise suppressor) (paragraphs 21, 25); and

implementing the at least one program for use at least for a duration of a communication connection to process a speech signal (paragraphs 23, 24; function programs are loaded from beginning to end of call); and

transmitting the processed speech signal over at least one communication network (paragraphs 20-26; when the hands free kit is used during a call, speech signals received by the hands free kit and processed by the function programs are transmitted to the wireless network via the connection of the wireless phone with the wireless network).

In the invention of Chang, the speech processing algorithm is loaded into the hands free car kit. However, Chang does not explicitly teach that the speech processing algorithm is loaded into the communication terminal from a service server. Desai discloses a cellular phone speaker console (title). Desai teaches that applications stored on a console (service server because it provides services to the mobile phone by expanding the functionality) may be uploaded to the storage device of the mobile phone temporarily for execution on the mobile phone (paragraph 27). Desai thus broadly teaches the concept of downloading a program to a mobile telephone from a docking station that provides a hands free function. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

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the invention of Chang to allow the wireless phone to download the function programs from the hands free kit, as taught by Desai, in order to allow the program to be used at a later time when the phone is not mated with the kit if desired. Furthermore, one of ordinary skill in the art would recognize that both the kit and phone have means to execute the program. Thus the device for which the program is executed is interchangeable.

Regarding claims 51 and 73, Chang teaches the telecommunication terminal is a mobile telecommunication terminal (paragraph 15).

Regarding claims 52, 74, and 83, Chang teaches the speech processing algorithm includes at least one of a hands-free, an echo cancellation, a speaker verification, a speaker recognition, a speaker classification, a voice verification, a voice recognition, a text-to- speech and a noise reduction algorithm (paragraph 21).

Regarding claims 53 and 75, Kato teaches establishing, over the at least one communication network, a connection between the telecommunication terminal and a server-based speech recognition system (column 3, lines 33-57).

Regarding claim 54, Kato teaches establishing a connection to the service server over the at least one communication network so as to facilitate the loading (column 3, lines 33-57).

Regarding claim 55, Kato teaches the connection is established via an interposed server-based speech recognition system (column 3, lines 33-37).

Regarding claim 56, Kato teaches the connection is established between the service server and the telecommunication terminal in response to an automatic or user-

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defined request (user call) signal by the telecommunication terminal (column 3, lines 33-57).

Regarding claim 57, Kato teaches the connection is established between the service server and the telecommunication terminal in response to a request signal of a server-based speech recognition system (column 3, lines 33-37).

Regarding claims 58 and 77, Kato teaches the establishing the connection is performed using respectively assigned identifiers (column 3, lines 58-65; kind of telephone terminal).

Regarding claim 59, Kato teaches the respectively assigned identifiers include at least one of a CLI, an ANI and an HLR (column 3, lines 58-65).

Regarding claim 60, Kato teaches transmitting further signals (recognition result) during the communication connection (column 4, lines 1-8).

Regarding claims 61 and 85, Kato teaches the further signals include at least one of test signals, compensation signals, charging signals, identification parameters, and vector signals (column 4, lines 23-36).

Regarding claim 62, Kato teaches selecting the speech processing algorithm using at least one of the telecommunication terminal, a speech recognition system, and the service server (column 3, lines 58-65).

Regarding claim 63, Kato teaches loading the at least one program again during the communication connection (column 4, lines 11-15).

Regarding claim 65, Kato teaches transmitting, by the telecommunication terminal, at least one of a specific identification parameter and a charging

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parameter for further processing by a device associated with at least one of a speech recognition system and the service server (column 3, lines 58-65).

Regarding claims 66 and 84, Kato teaches calibrating, by the telecommunication terminal, at least one of an A/D conversion and a D/A conversion (column 2, lines 32-37).

Regarding claim 67, Kato teaches the calibrating is performed at least one of once during the communication connection, continuously, and digitally (column 4, lines 15-22).

Regarding claim 68, Kato teaches the calibrating is performed using a compensation signal, the compensation signal being at least the speech signal and a test signal (column 4, lines 23-36).

Regarding claim 69, Kato teaches performing a procedure for locating a speech source (column 4, lines 23-36).

Regarding claim 70, Kato teaches performing the procedure for locating the speech source is performed for a multi-channel processing of at least two microphone signals (column 3, lines 58-65; column 4, lines 23-36; speech signal can be evaluated based on many characteristics).

Regarding claim 71, Kato teaches the performing the procedure for locating the speech source is performed so as to achieve a noise reduction (column 4, lines 23-36).

Regarding claim 78, Kato teaches a server-based speech recognition system configured to enable the at least one program to be selected and at least temporarily loaded and implemented on the at least one telecommunication terminal in response to

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identification parameters associated with the at least one telecommunication terminal (column 3, lines 58-65).

Regarding claim 79, Kato teaches the service server is configured to enable the at least one program to be selected and at least temporarily loaded and implemented on the at least one telecommunication terminal in response to identification parameters associated with the at least one telecommunication terminal (column 3, lines 58-65).

Regarding claim 86, Kato teaches the telecommunication terminal as recited in comprises an encoder unit (figure 4, items 305, 301).

Regarding claim 87, Kato teaches the telecommunication terminal comprises a conversion device configured to convert a speech signal between different frequency bands (figure 4, items 301, 302).

4. Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 2002/0034971), Desai (US 2004/0204074), and Kato (US 6,522,725), as applied to claim 50, and further in view of Ainslie et al. (US 6,480,599).

The combination of Chang, Desai, and Kato teaches loading, at least temporarily, the updated at least one program into the telecommunication terminal during the communication connection (Chang paragraphs 23, 24), but does not explicitly teach that the program is updated. Ainslie discloses a telecommunications system and method for automatic call recognition and distribution (title). Ainslie teaches that automatic speech recognition programs and/or interactive voice response programs are updated remotely and adjusted by a customer service computer (column 4, lines 25-35). Therefore it

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would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang, Desai, and Kato to allow the speech recognition program to be updated, as taught by Ainslie, in order to improve reliability or performance of the program through updates that improve or fix existing problems.

5. Claims 76, 80, 81, and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 2002/0034971), Desai (US 2004/0204074), and Kato (US 6,522,725), as applied to claims 72 and 62, and further in view of Anastasakos et al. (US 2004/0192384) (hereinafter Anastasakos).

Regarding claim 76, the combination of Chang, Desai, and Kato teaches the limitations set forth in claim 72, but does not explicitly teach that the service server is provided by a WEB server, and further comprising at least one of a server-based speech recognition system, a charging and a billing system provided by the WEB server. Anastasakos discloses a method and apparatus for selective distributed speech recognition. Anastasakos teaches a WEB server, and further comprising at least one of a server-based speech recognition system, a charging and a billing system provided by the WEB server (figure 3, items 162, 108, 172, 110; paragraphs 21, 33, 35). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Chang, Desai, and Kato to include web capability and billing, as taught by Anastasakos, in order to further enhance the communication capability of the server and allow the network to charge based on certain parameters or specific price preferences.

Regarding claims 80 and 81, Anastasakos teaches a server-based speech recognition system and at least one of a charging system and a billing system configured to charge, in response to at least one of an identification and a charging parameter associated with the at least one telecommunication terminal, for a service at least temporarily provided by a server-based speech recognition system to the at least one telecommunication terminal (figure 3, items 162, 108, 172, 110; paragraphs 21, 33, 35).

Regarding claim 90, the combination of Chang, Desai, and Kato teaches the limitations in claim 62, but does not explicitly teach the speech processing algorithm is selected in response to a current environment associated with the telecommunication terminal. Anastasakos teaches that a network speech recognition engine is chosen based on environment information for which the wireless device is in (paragraph 20). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Chang, Desai, and Kato, to take into account environment information when using the speech recognition program, as taught by Anastasakos, in order to increase the probability of correctly recognizing speech terms based on an expected noise factor.

6. Claim 88 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 2002/0034971), Desai (US 2004/0204074), and Kato (US 6,522,725), as applied to claim 82, and further in view of Zhang et al. (US 2004/0058647) (hereinafter Zhang).

The combination of Chang, Desai, and Kato teaches the limitations set forth in claim 82, but does not explicitly teach that the communication terminal further comprises an interface device configured for at least one of wired and wireless connection of at least one of an external microphone and a loudspeaker. Zhang discloses an apparatus and method for providing hands-free operation of a device. Zhang teaches an interface device configured for at least one of wired and wireless connection of at least one of an external microphone (headset microphone) and a loudspeaker (figures 2, 3, 5). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the terminal of Chang, Desai, and Kato to include integration of a headset so that a user would not have to hold the telephone while a conversation or submitting a voice command.

7. Claim 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 2002/0034971), Desai (US 2004/0204074), and Kato (US 6,522,725), as applied to claim 62, and further in view of Cook (US 7,099,825).

The combination of Chang, Desai, and Kato teaches the limitations set forth in claim 62, but does not explicitly teach the speech processing algorithm is selected in response to identification parameters associated with the telecommunication terminal. Cook discloses user mobility in a voice recognition environment (title). Cook teaches that a device communicates voice recognition data along with a user ID and its own device ID (identification parameters) (column 8, lines 20-27). Thus Cook broadly teaches the concept of sending identification parameters for use in a speech processing

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algorithm or service. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Chang, Desai, and Kato, to include the capability to transfer identification parameters, as taught by Cook, in order to properly identify the subscriber and device for authentication purposes or customization for both the subscriber and device.

Response to Arguments

8. Applicant's arguments with respect to claims 50-90 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Nam Huynh/
Examiner, Art Unit 2617